

Integrated Supply Inventory System (ISIS)



Supply Management Unit
Combat Logistics Regiment – 15
1st Marine Logistics Group
1st Marine Expeditionary Force

ISIS AGENDA

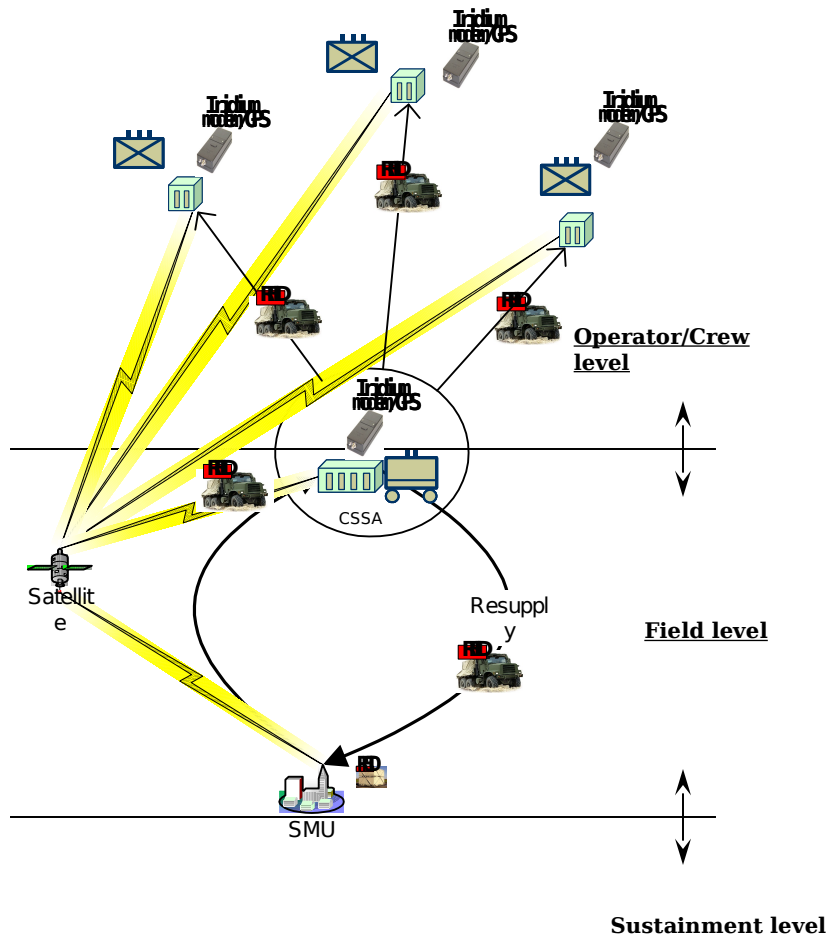


- What is it?
- Inventory Management
- Transactions
- RFID Technology
- Expeditionary Capability Set
- Who's Using It
- Issues
- Way Ahead

What Is It?

- An information system that supports a shared data warehouse environment
- Utilizes standard COTS equipment without requiring a data interface
- Configured to take full advantage of active and passive RFID technology
- Intra-container warehouse management

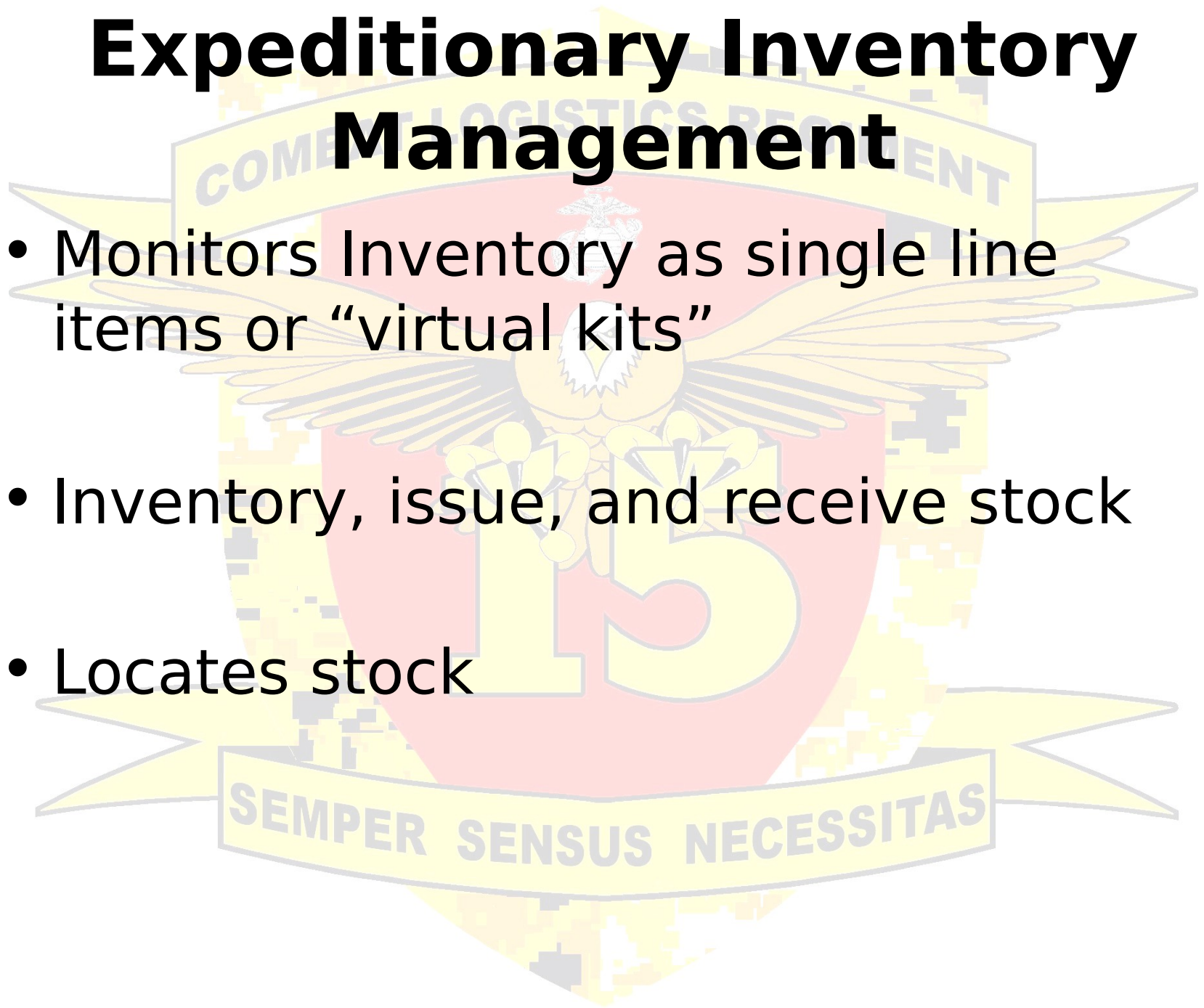
Expeditionary Warehouse Management



- The ISIS/PDK suite is designed to provide a logistics capability to the MAGTF in the form of an expeditionary direct support inventory management system.
- ISIS combined with the PDK is an outstanding bridge technology that is capable of providing global direct supply support

Expeditionary Inventory Management

- Monitors Inventory as single line items or “virtual kits”
- Inventory, issue, and receive stock
- Locates stock



Supply Transactions

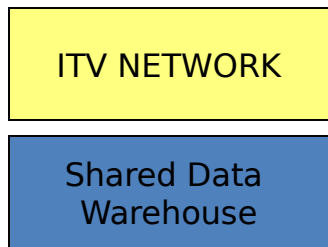
- Reads/writes bar codes, active, and passive tags
 - Able to read DLA and SMU 2D bar codes (no manual keypunching)
 - Capable of passive tag reads and transfer to active tags
- Automatic stock replenishment transaction
 - Capable of automatic stock re-comps to update balance file.
 - Automatically send SASSY courier files

RFID Technology

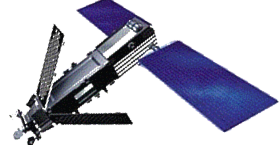
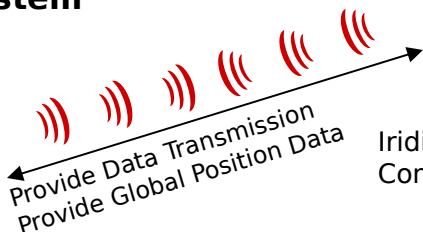


- SAVY PDK
 - Satellite-based system
 - No fixed communications or RFID interrogator
 - Provides visibility between and beyond existing RFID nodes.
 - Read/writes RFID tags (active & passive)
- Provides Active RFID interrogator in support of distribution
- Existing technology

Expeditionary Warehouse Management System



Ethernet Connectivity
USB Flash File Transfers
SALTS
EMAIL



Iridium & Cellular,
Communications

Current Inventory Levels
LUBF DATASETS



ISI
S

Containers not included



Read / Write Active Tags , provides in transit inventory visibility
300 ft read / write range , identify container contents, search by NSN



RF



Powered via HUMVEE, Solar, Direct Power or Batteries

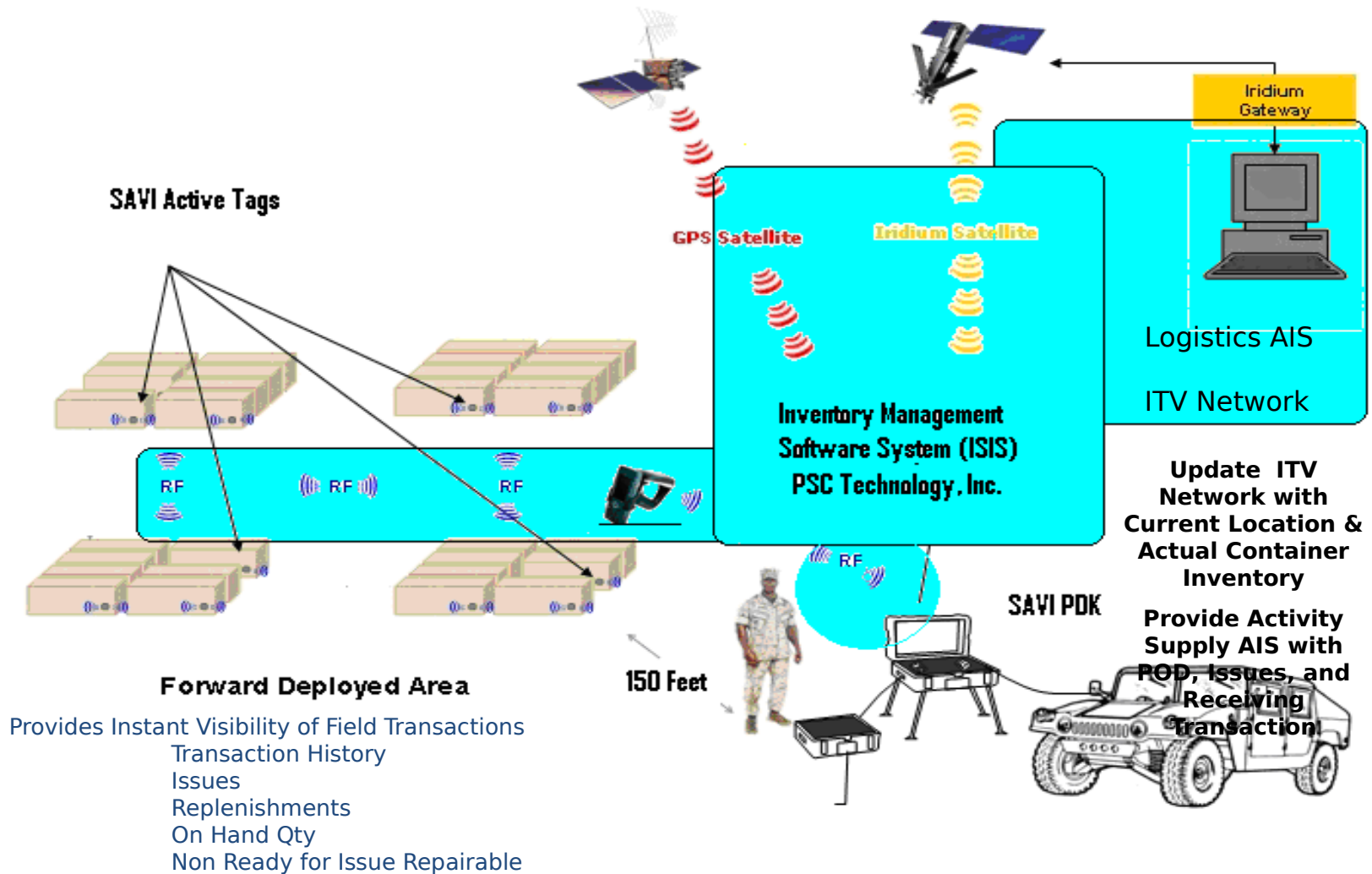


**Expeditionary
Inventory
Communication
Management
System**

Read Passive / Active RFID Tags
and Barcodes.
Inventory Management
of Receipts, Issues, Inventory Level
& Transaction History
Import and Search
LUBF and DASF Reports

ISIS BIG PICTURE

PDK & ISIS = Total Asset Visibility & Management



Detail data on number of kits, available parts & asset location

Kits Report - Microsoft Internet Explorer provided by NMCI

File Edit View Favorites Tools Help

Address <http://65.36.181.86/IsisWeb/KitRpt.aspx>

Current Login: SMU
[Home](#) | [Change Command Data](#) | [Logout](#)
[ISIS Overview Power Point](#)
Today's date is: Oct 1, 2006
The Julian date is: 6274

Current Command Data: **1ST SUPPLY BATTALION**
Filter by Direct Support Unit:
Upload Data Update File:

MILSTRIP

Kit Profiles:

[Printer Friendly Report](#)

Reports
[Inventory](#)
[Transactions](#)
[Kits](#)

Show Details	Priority	Customer Kit ID	Kit Name	Description	Min Kits Req	Status	End Item	Kits Avail	Unit Site
Details	0	K006	HALFSHAFT A2	HALFSHAFT A2	3	A	HMMWV	2	CLB-7 ISIS TEST SITE

Kit Details:

Customer Kit ID	FSC	NIIN	Nomenclature	Part Number	Req Qty	On Hand	Unit Site
K006	5306	011857048	BOLT	5306011857048	6	29	CLB-7 ISIS TEST SITE
K006	2520	014214589	REAR	2520014214589	1	2	CLB-7 ISIS TEST SITE
K006	2520	014231947	RIGHT FRONT	2520014231947	1	2	CLB-7 ISIS TEST SITE
K006	2520	014214588	LEFT FRONT	2520014214588	1	3	CLB-7 ISIS TEST SITE

©2006 PSC Technology, All Rights Reserved

<http://65.36.181.86/IsisWeb/KitRpt.aspx> Internet

Near real-time inventory visibility via web access.

ISIS Web Demonstration - Microsoft Internet Explorer provided by NMCI

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <http://65.36.181.86/IsisWeb/inventory.aspx> Go Links

Current Login: SMU
[Home](#) | [Change Command Data](#) | [Logout](#)
[ISIS Overview](#) [Power Point](#)
Today's date is: Oct 1, 2006
The Julian date is: 6274

Current Command Data: 1ST SUPPLY BATTALION
Filter by Direct Support Unit: 2 - CLB-7 ISIS TEST SITE Apply Filter
Upload Data Update File: Browse... Upload

MILSTRIP Reports
Inventory
Transactions
Kits

Inventory Report

Download Inventory SELECT----- To Search

[Printer Friendly Report](#)

Part Number	Description	Serial Number	Quantity	Condition	COG	Current Location	Unit Site	Org ID	Container
014591367	FILTER SEPARATOR H	N/A	3	R		C160101AA	CLB-7 ISIS TEST SITE	1MEF	
011318321	FILTER	N/A	3	R		C160101AB	CLB-7 ISIS TEST SITE	1MEF	
000000001	FRAM FILTER		3	R		C160101AC	CLB-7 ISIS TEST SITE	1MEF	
013983361	FILTER, FLUID	N/A	3	R		C160101AD	CLB-7 ISIS TEST SITE	1MEF	
000000002	OIL FILTER	N/A	3	R		C160101AE	CLB-7 ISIS TEST SITE	1MEF	
014794582	BRACKET, VEHICULAR	N/A	3	R		C160101AF	CLB-7 ISIS TEST SITE	1MEF	
009144680	BREATHER	N/A	3	R		C160102AA	CLB-7 ISIS TEST SITE	1MEF	
014463786	SEAL, PLAIN ENCASED	N/A	3	R		C160102AB	CLB-7 ISIS TEST SITE	1MEF	
008557478	RELAY, ELECTROMAGNETIC	N/A	3	R		C160102AC	CLB-7 ISIS TEST SITE	1MEF	
011557359	SWITCH, PUSH	N/A	3	R		C160102AD	CLB-7 ISIS TEST SITE	1MEF	

Internet

Expeditionary Capability Set (ECS)

- Four components that facilitate the logistics expeditionary capability set
 - ISIS software
 - PDK hardware
 - Expeditionary warehousing unit
 - Trailer
- ECS provides enhanced visibility, inventory control, and agility

Not required for ISIS

Expeditionary Warehousing Unit + Trailers



Expeditionary Warehousing Unit



Who's Using It

- ISIS is currently being employed at the following 1st MLG locations:
 - CLB-7 Twenty-nine Palms, CA
 - CLB-11 Currently Deployed
 - CLB-15 Camp Pendleton, CA
 - CLB-5 Camp Pendleton, CA {new}
 - CLB-13 Camp Pendleton, CA {TBD}

CLB-11 ISIS Employment

- CLB-11 is currently using ISIS while deployed
- Used solely as an expeditionary warehouse management tool
- Tests are being conducted for possible expanded future use

CLB-15 ISIS Employment

- Current ConOps
 - ISIS distributed across three ships to better support the 15th MEU while underway.
 - Utilizing the full range of supply functions (e.g. issue, receipt, inventory, etc.)
 - Testing the concept of using the system for the complete Class IX block in addition to Virtual Kits

CLB-7 Inventory Management

- 43 plus virtual kits and expanding
- 843 NSNs and growing (includes traditional Class-IX block)



CLB-7 ECS

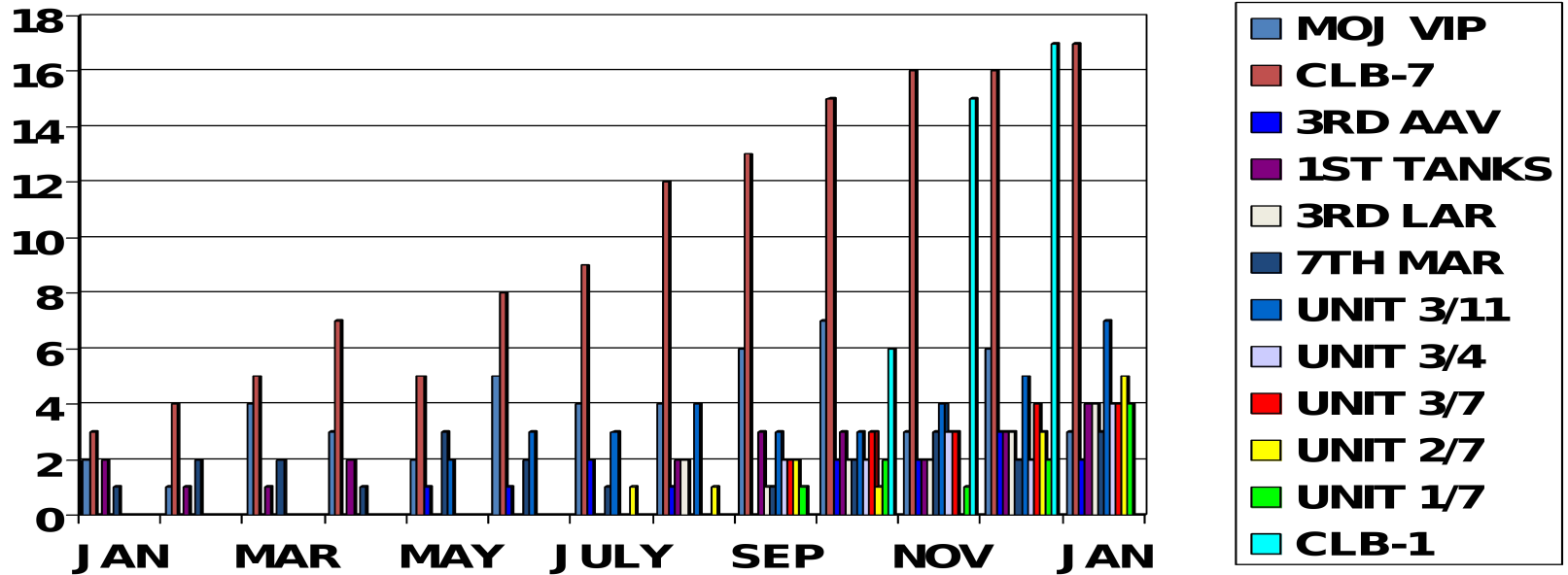
- Currently operating with 2 Expeditionary Warehousing Units and trailers
- Successfully deployed the ECS to black top area in 29 Palms, Via Rainbow Canyon
- Satellite transmission utilized in field operation from black top area 29 Palms

CLB-7 Maintenance



- 38 plus same day turnaround repairs so far, for just CLB-7 alone.
- All usage either down graded an end item from a combat dead-lined status or completed the equipment repair order.

CLB-7 Increased Usage



“Roach Coach”- Transported ECS around to different motor pools of 7th Marines IOT show its capabilities

Customers have grown by 44%

Utilized by CLB-1 for Mojave Viper

CLB-5 ISIS Employment

- Current ConOps
 - ISIS/PDK suite in the deployment to Iraq in support of 5th Marines
 - Plans to utilize full range of system capabilities (e.g. active & passive tags, issue, receipt, etc.)
 - Current Inventory management involves 40 virtual kits containing 201 NSNs

Concerns Addressed During Testing



- Internet Inventory not updating fast enough (CLB 7)
- Transaction formats - files created with spaces (CLB 7)
- Transmissions to web portal (CLB 15)
- Software version updates – slowed system (CLBs-7 & 11 + SMU)
- Vendor support (CLB 7 & SMU) – “Walk” phase

ISSUES - Good



- Supports Expeditionary and Distributed Ops
- Easy and well organized issue/receipt process
- Web portal is a great tool for customer stock checks
- ISIS locator system reduces the time required to retrieve parts
- Hand-held scanners are great for obtaining information and transmitting updates

Lessons Learned



- Business process changes.
 - Formalized process to request parts
 - Maintain a log of events
 - Batch couriers daily
- Implemented an auto-replenishment module – Create one courier to offset replenishment every-time

WAY AHEAD



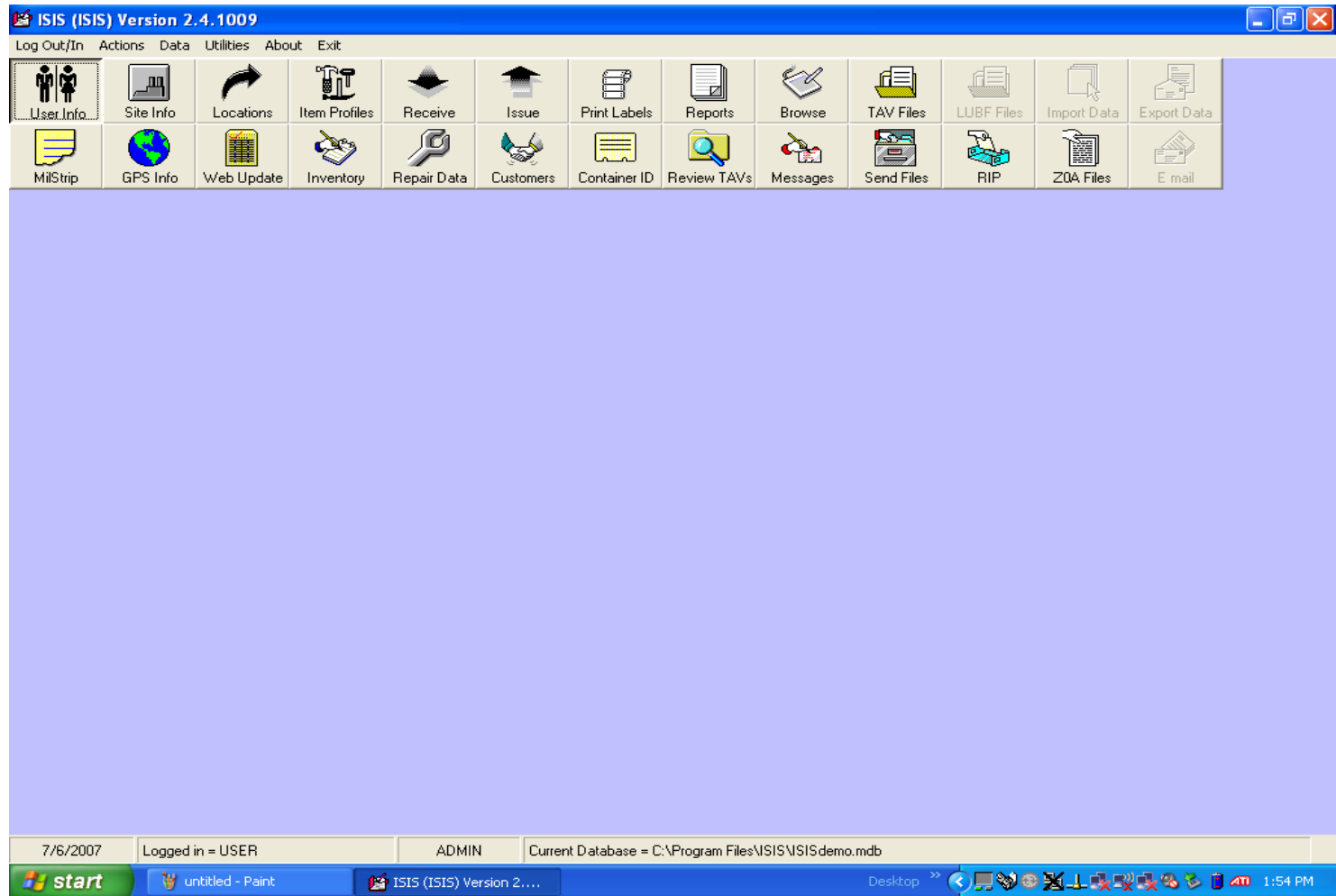
- Continued testing of its capabilities
- Expand use as lessons learned are applied and processes are smoothed
- Program of Record/Bridge Technology



Questions

Back up Slides

ISIS Screen View



Expeditionary Warehousing Unit + Trailers



Expeditionary Warehousing Unit

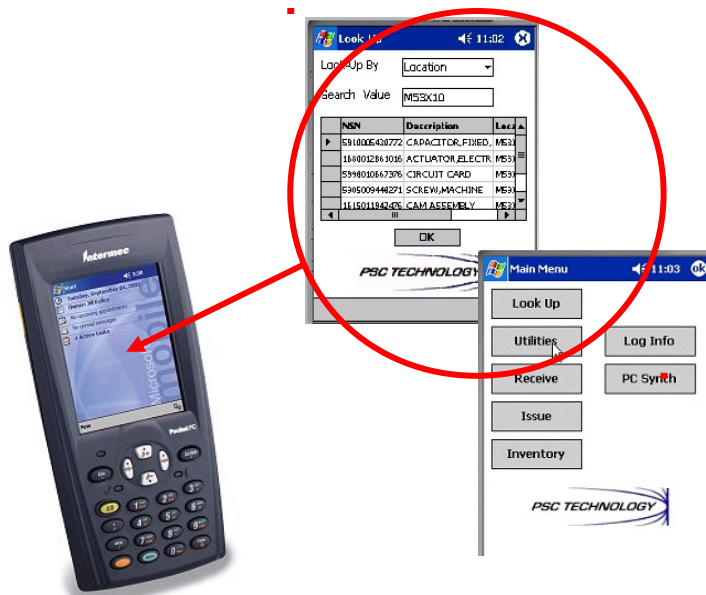


CLB-7 Initiatives

- “Roach Coach”- Transported ECS around to different motor pools of 7th Marines IOT show its capabilities
- Utilized by CLB-1 for Mojave Viper

Hand-Held Used with ISIS

The cornerstone of the ISIS Deployment Management System is the hand-held computer application. This application will allow the deployed user to perform inventories, receive and issue material and review inventory events.



This information can then be uploaded to a home activity via Iridium modem or email. The System additionally provides ITV network with current inventory and GPS Location.

The activity will then have current inventory levels, event and transaction history not previously available.

Portable Deployment Kit (PDK)



ISIS with the PDK



- The ISIS/PDK suite is designed to provide a logistics capability to the MAGTF in the form of an expeditionary direct support inventory management system.
- ISIS combined with the PDK is an outstanding bridge technology that is capable of providing global direct supply support.

Concept of Supply Support

